

Permit No. DC0000094

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, 33 U.S.C. # 1251 et seq. (the "Act"),

Potomac Electric Power Company
Benning Generating Station

is authorized to discharge from a facility located at

3300 Benning Road N.E.
Washington, DC 20019

to receiving waters named

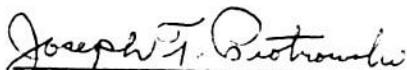
Anacostia River

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, III, and IV herein.

This permit shall become effective on January 16, 1989.

This permit and the authorization to discharge shall expire at midnight, January 15, 1994.

Signed this 16th day of December, 1988.



for Alvin R. Morris, Director
Water Management Division
U.S. Environmental Protection Agency
Region III

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the issuance date and lasting through the expiration date the permittee is authorized to discharge from outfall(s) serial number(s) ⁰¹³103 (dirty water sump).

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day(lb/day)		Other Units (Specify)		Measurement	Sample
	Avg Monthly	Max. Daily	Avg Monthly	Max. Daily	Frequency	Type
Flow (mgd) (0.13)	N/A	N/A	x N/L	x N/L	1/Month	Estimated
Total Suspended Solids	N/A	N/A	30 mg/l	100 mg/l	1/Month	Grab
Oil & Grease	N/A	N/A	15 mg/l	20 mg/l	1/Month	Grab

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored once per month by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples shall be taken in compliance with the monitoring requirements specified above at the following location(s): at monitoring point 103 prior to combination with any other effluent stream.

x N/L - No limit, only monitoring is required.

Note: There shall be no discharge of polychlorinated biphenyl compounds (PCB's) to the receiving stream.

NOTE: LIMITS COMBINED WITH 201

PUT HERE NEW
OUTFALL # 013

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period following construction of two new 100 MW turbine units and lasting until expiration date, the permittee is authorized to discharge from outfall(s) serial numbers: 009 (catch basin).

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day(lb/day)		Other Units (Specify)		Measurement	Sample
	Avg Monthly	Max. Daily	Avg Monthly	Max. Daily	Frequency	Type
Flow (mgd)	N/A	N/A	* N/L	* N/L	1/month	Estimate
Oil and Grease	N/A	N/A	15 mg/l	20 mg/l	1/month	Grab
Total Suspended Solids	N/A	N/A	30 mg/l	100 mg/l	1/month	Grab

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored once per discharge by grab sample.

The discharge shall be free from floating solids, sludge deposits, debris, oil and scum.

Samples shall be taken in compliance with the monitoring requirements specified above at the following location:
Outfall 009

* N/L. No limit only monitoring is required.

NO. 12-1-1000-1721

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the issuance date and lasting through the expiration date the permittee is authorized to discharge from outfall(s) serial number 010 drying area

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day(lb/day)		Other Units (Specify)		Measurement	Sample
	Avg Monthly	Max. Daily	Avg Monthly	Max. Daily	Frequency	Type
Flow (mgd)	N/A	N/A	* N/L	* N/L	1/month	Estimated
Total Suspended Solids	N/A	N/A	30 mg/l	100 mg/l	1/month	Grab
Oil & Grease	N/A	N/A	15 mg/l	20 mg/l	1/month	Grab

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored once per discharge by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples shall be taken in compliance with the monitoring requirements specified above at the following location(s): at monitoring point 010.

* N/L - No limit, only monitoring is required.

Note: There shall be no discharge of polychlorinated biphenyl compounds (PCB's) to the receiving stream.

010 → 403 → NEW 013

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the issuance date and lasting through the expiration date the permittee is authorized to discharge from outfall(s) serial number(s) 002 (cooling tower blowdown).

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day(lb/day)		Other Units (Specify)		Measurement	Sample
	Daily Avg.	Max. Daily	Daily Avg.	Max. Daily	Frequency	Type
Flow (mgd)	N/A	N/A	* N/L	* N/L	Continuous	Measured
Free Available Chlorine **	N/A	N/A	.2 mg/l	.5 mg/l	1/week	Grab
Total Zinc (net limit)	N/A	N/A	1.0	1.0	1/week	Grab
Total Chromium (net limit)	N/A	N/A	.2	.2	1/week	Grab

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored once per week by grab sample.

The discharge shall be free from floating solids, sludge deposits, debris, oil and scum.

Samples shall be taken in compliance with the monitoring requirements specified above at the following location: Outfall 002.

* N/L - No limit; only monitoring is required.

** Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day.

Note: There shall be no discharge of polychlorinated biphenyl compounds (PCB's) to the receiving stream.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the issuance date and lasting through the expiration date the permittee is authorized to discharge from outfall(s) serial number(s) 201 (oil/water separator and boiler blowdown).

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day(lb/day)		Other Units (Specify)		Measurement	Sample
	Avg Monthly	Max. Daily	Avg Monthly	Max. Daily	Frequency	Type
Flow (mgd)	N/A	N/A	* N/L	* N/L	1/Month	Measured
Total Suspended Solids	N/A	N/A	30 mg/l	100 mg/l	1/Month	Grab
Oil & Grease	N/A	N/A	15 mg/l	20 mg/l	1/Month	Grab

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored once per month by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples shall be taken in compliance with the monitoring requirements specified above at the following location(s): at monitoring point 201 prior to combination with any other effluent stream.

* N/L - No limit, only monitoring is required.

Note: There shall be no discharge of polychlorinated biphenyl compounds (PCB's) to the receiving stream.

NOTE: OUTFALLS 103 & 201 COMBINED

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the issuance date and lasting through the expiration date the permittee is authorized to discharge from outfall(s) serial number(s) 204 (fireside washing).

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day(lb/day)		Other Units (Specify)		Measurement	Sample
	Avg Monthly	Max. Daily	Avg Monthly	Max. Daily	Frequency	Type
Flow (mgd)	N/A	N/A	* N/L	* N/L	2/Month	Measured
Total Suspended Solids	N/A	N/A	30 mg/l	100 mg/l	2/Month	Grab
Oil & Grease	N/A	N/A	15 mg/l	20 mg/l	2/Month	Grab

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored twice per month by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples shall be taken in compliance with the monitoring requirements specified above at the following location(s): at monitoring point 204 prior to combination with any other effluent stream.

* N/L - No limit, only monitoring is required.

Note: There shall be no discharge of polychlorinated biphenyl compounds (PCB's) to the receiving stream.

*Note: Only 204 outfall is
designated as a
process in 2-Application 21993?*

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the issuance date and lasting through the expiration date the permittee is authorized to discharge from outfall(s) serial number(s) 205 (spoils ponds).

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day(lb/day)		Other Units (Specify)		Measurement	Sample
	Avg Monthly	Max. Daily	Avg Monthly	Max. Daily	Frequency	Type
Flow (mgd)	N/A	N/A	* N/L	* N/L	1/discharge	Estimated
Total Suspended Solids	N/A	N/A	30 mg/l	100 mg/l	1/discharge	Grab
Oil & Grease	N/A	N/A	15 mg/l	20 mg/l	1/discharge	Grab

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored once per discharge by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples shall be taken in compliance with the monitoring requirements specified above at the following location(s): at monitoring point 205 prior to combination with any other effluent stream.

* N/L - No limit, only monitoring is required.

Note: There shall be no discharge of polychlorinated biphenyl compounds (PCB's) to the receiving stream.

NOTE: New discharge in 2000 app. 4/1999?

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the issuance date and lasting through the expiration date the permittee is authorized to discharge from outfall(s) serial number(s) 003 (oil/water separator).

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day(lb/day)		Other Units (Specify)		Measurement	Sample
	Avg Monthly	Max. Daily	Avg Monthly	Max. Daily	Frequency	Type
Flow (mgd)	N/A	N/A	* N/L	* N/L	1/Month	Measured
Oil & Grease	N/A	N/A	15 mg/l	20 mg/l	1/Month	Grab

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored once per month by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples shall be taken in compliance with the monitoring requirements specified above at the following location(s): at monitoring points 003 prior to combination with any other effluent stream.

* N/L - No limit, only monitoring is required.

Note: There shall be no discharge of polychlorinated biphenyl compounds (PCB's) to the receiving stream.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the issuance date and lasting through the expiration date the permittee is authorized to discharge from outfall(s) serial number(s) 411 (stormwater runoff).

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day(lb/day)		Other Units (Specify)		Measurement	Sample
	Avg Monthly	Max. Daily	Avg Monthly	Max. Daily	Frequency	Type
Flow (mgd)	N/A	N/A	* N/L	* N/L	1/discharge	Estimated
Oil & Grease	N/A	N/A	15 mg/l	20 mg/l	1/discharge	Grab

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored once per discharge by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples shall be taken in compliance with the monitoring requirements specified above at the following location(s): at monitoring point 411 prior to combination with any other effluent stream.

* N/L - No limit, only monitoring is required.

Note: There shall be no discharge of polychlorinated biphenyl compounds (PCB's) to the receiving stream.

Note: 411 new discharge in 1993?

B. SCHEDULE OF COMPLIANCE

The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

N/A

STANDARD CONDITIONS FOR NPDES PERMITS

SECTION A. GENERAL CONDITIONS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

2. Penalties for Violations of Permit Conditions

The Clean Water Act provides that any person who violates a permit condition implementing sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing sections 301, 302, 306, 307, or 308 of the Clean Water Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

4. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

- a. Violation of any terms or conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge;
- d. Information newly acquired by the Agency, including but not limited to the results of the studies, planning, or monitoring described and/or required by this permit;

- e. Facility modifications, additions, and/or expansions;
- f. Any anticipated change in the facility discharge, including any new significant industrial discharge or changes in the quantity or quality of existing industrial discharges that will result in new or increased discharges of pollutants; or
- g. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. When a permit is modified, only conditions subject to modification are reopened.

5. Toxic Pollutants

Notwithstanding paragraph A-4, above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under section 307(a) of the Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition and the permittee so notified.

The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic standards within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

6. Civil and Criminal Liability

Except as provided in permit conditions on "Bypassing" Section B, Paragraph B-2 and "Upsets" Section B, Paragraph B-3, nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

7. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any

responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

8. States Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Act.

9. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Severability

The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

11. Transfer of Permit

In the event of any change in ownership or control of facilities from which the authorized discharge emanates, the permit may be transferred to another person if:

- a. The current permittee notifies the Director, in writing, of the proposed transfer at least 30 days in advance of the proposed transfer date;
- b. The notice includes a written agreement, between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
- c. The Director does not notify the current permittee and the new permittee of intent to modify, revoke and reissue, or terminate the permit and require that a new application be submitted.

12. Construction Authorizations

This permit does not authorize or approve the construction of any

onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.

13. Reopener Clause for Permits

This permit shall be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under sections 301, 304, and 307 of the Clean Water Act, if the effluent standard or limitation so issued or approved:

- a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- b. Controls any pollutant not limited in the permit. The permit, as modified or reissued under this paragraph, shall also contain any other requirements of the Act then applicable.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times properly operate, inspect and maintain all facilities and systems of treatment and control (and related appurtenances including sewers, intercepting chambers, interceptors, combined sewer overflows, and emergency bypasses) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

2. Bypass of Treatment Facilities

a. Definitions

- (1) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility to the receiving stream.
- (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.

b. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs c and d of this section.

c. Notice

- (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
- (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section D, Paragraph D-6 (24-hour notice).

d. Prohibition of bypass.

- (1) Bypass is prohibited and the Director may take enforcement action against a permittee for bypass, unless:
 - (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (c) The permittee submitted notices as required under paragraph c of this section.
- (2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph d(1) of this section.

3. Upset Conditions

- a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph c of this section are met. Administrative determination by the Agency on upset claims of the permittee, made before commencement of an action for noncompliance, are not final administrative actions subject to judicial review.

- c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:
- (1) An upset occurred and that the permittee can identify the specific cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permittee submitted notice of the upset as required in Section D, Paragraph D-6; and
 - (4) The permittee complied with any remedial measures required under Section A, Paragraph A-3.
- d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

4. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit. Monitoring points shall not be changed without notification to and the approval of the Director.

2. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to insure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device.

3. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

4. Penalties for Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

5. Reporting of Monitoring Results

Monitoring results must be reported on a Discharge Monitoring Report (DMR) form (EPA No. 3320-1). Monitoring results obtained during the previous three months shall be summarized for each month and reported on a DMR form postmarked no later than the 28th day of the following months: January, April, July, and October. Copies of DMR's signed and certified as required by Section D, Paragraph D-10, and all other reports required by Section D, Reporting Requirements, shall be submitted to the Director and to the District of Columbia Government, Department of Public Works at the following addresses:

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION III,
PERMITS ENFORCEMENT BRANCH (3WM60)
841 CHESTNUT BUILDING
PHILADELPHIA, PENNSYLVANIA 19107

and

DISTRICT OF COLUMBIA GOVERNMENT
ENVIRONMENTAL CONTROL DIVISION
WATER HYGIENE BRANCH
5010 OVERLOOK AVENUE, S.W.
WASHINGTON, D.C. 20032

6. Monitoring and Analytical Equipment Maintenance

The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals frequent enough to insure accuracy of measurements and shall insure that both calibration and maintenance activities will be conducted.

7. Analytical Quality Control

An adequate analytical quality control program, including the analyses of sufficient standards, spikes, and duplicate samples to insure the accuracy of all required analytical results, shall be maintained by the permittee or designated commercial laboratory.

8. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR form. Such frequency shall also be indicated.

9. Retention of Records

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

10. Record Contents

Records of monitoring information shall include:

- a. The date, exact place, time and methods of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

11. Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the permittee's premises where a regulated facility activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

12. Definitions

- a. The "daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as

the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

- b. The "average monthly discharge limitation" means the highest allowable average of "daily discharge" over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
- c. The "maximum daily discharge limitation" means the highest allowable "daily discharge."
- d. Grab Sample - An individual sample collected in less than 15 minutes.
- e. The "monthly average" temperature means the arithmetic mean of temperature measurements made on an hourly basis, or the mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar month, or during the operating month if flows are of shorter duration.
- f. The "daily maximum" temperature means the highest arithmetic mean of the temperature observed for any two (2) consecutive hours during a 24-hour day, or during the operating day if flows are of shorter duration.
- g. "At outfall XXX" - A sample location before the effluent joins or is diluted by any other waste stream, body of water, or substance or as otherwise specified.
- h. Estimate - To be based on a technical evaluation of the sources contributing to the discharge including, but not limited to pump capabilities, water meters and batch discharge volumes.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. The permittee may submit to the permitting authority requests for modification of this provision in accordance with future promulgated regulations.

2. Anticipated Noncompliance

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers

This permit is not transferable to any person except after notice to the Director as specified in Section A, Paragraph A-11. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

4. Monitoring Reports

Monitoring results shall be reported at the intervals and in the form specified in Section C, Paragraph C-5 (Reporting of Monitoring Results).

5. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance may include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

6. Twenty-Four Hour Reporting

The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of

noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; the steps taken or planned to reduce, eliminate, prevent recurrence of the noncompliance, and the steps taken to minimize any adverse impact to navigable waters.

The following shall be included as information which must be reported within 24 hours:

- a. Any unanticipated bypass which exceeds any effluent limitation in the permit.
- b. Any upset which exceeds any effluent limitation in the permit.
- c. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part I of the permit.

The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours and the noncompliance does not endanger health or the environment.

7. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under Section D, Paragraph D-1, D-4, D-5, and D-6 at the time monitoring reports are submitted. The reports shall contain the information listed in Paragraph D-6.

8. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

9. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit. The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. In the event that a timely and complete reapplication has been submitted and the Director is unable, through no fault of the permittee, to issue a new permit before

the expiration date of this permit, the terms and conditions of this permit are automatically continued and remain fully effective and enforceable.

10. Signatory Requirements

All applications, reports or information submitted to the Director shall be signed and certified as required by 40 CFR 122.22.

11. Availability of Reports

Unless a confidentiality claim is asserted pursuant to 40 CFR Part 2, all reports submitted in accordance with the terms of this permit shall be available for public inspection at the offices of the Director. If a confidentiality claim is asserted, the report will be disclosed only in accordance with the procedures in 40 CFR Part 2. As require by the Act, permit applications, permits and effluent data shall not be considered confidential.

12. Penalties for Falsification of Reports

The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring report or reports of compliance or noncompliance shall, upon conviction, be punished by fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

13. Correction of Reports

If the permittee becomes aware that it submitted incorrect information in any report to the Director, it shall promptly submit the correct information.

Special Conditions

1. Debris collected on the intake trash racks shall not be returned to the waterway.
2. There shall be no discharge of sludge from clarification water treatment.
3. The permittee is authorized to use Powerline 3423, Polymer 1117L, and Inhibitor 562C as chemicals additives in the cooling water system in concentrations recommended by the manufacturer. If additional additives are used or a change in additives is made, the permittee shall notify EPA Region III in writing.
4. The 126 priority pollutants listed on the Appendix A of 40 CFR 423 are prohibited in detectable amounts where they are contained in cooling tower maintenance chemicals, except total chromium and total zinc.
5. The only discharge authorized from Outfall 101, 005, 006, and 401 to 409 is uncontaminated stormwater runoff.
6. The permittee shall not augment the use of process wastewater or otherwise dilute the wastewater as a partial or total substitute from adequate treatment to achieve compliance with the effluent limitations, at Outfalls 103, 002, 201, and 204.
7. Biomonitoring Requirements

EPA Region III will conduct acute toxicity tests, on Outfall 002. The tests shall be conducted on dechlorinated effluent using Daphnia magna and fathead minnow species according to the Methods for Measuring the Acute Toxicity of Effluent to Freshwater and Marine Organisms (EPA/600/4-85-13). The tests shall include a 96-hour static renewal test using fathead minnow and a 48-hour static renewal test using Daphnia magna, in such manner and at sufficient dilutions for the calculation of a valid LC50.

If any test results in an LC50 of less than 100% effluent, then this permit could be reopened to include biomonitoring requirements.

8. Within six months after startup of the combustion turbines, the permittee shall submit to EPA a completed 2C application for each new outfall permitted under Amendment #1, according to 2C instruction.
9. PEPCO shall install for the entire facility Best Management Practices to control non-point source runoff, as required by District of Columbia Municipal Regulations, Part 21, Chapter 5.
10. If, during construction, there are any activities which would require Clean Water Act Section 404 Water Quality Certification, then PEPCO shall be required to have Anacostia River sediment in the affected areas analyzed for chlordane and polychlorinated biphenyls (PCB).

Best Management Practice
Hazardous Substances Spill Prevention Control Plan

1. General Requirements

At the effective date of this permit, the permittee shall implement a Hazardous Substances Spill Prevention Control Plan (HSSPCP).

The HSSPCP shall cover all hazardous substances as designed in 40 CFR 116.4 used or stored on-site that have spilled or discharged or could reasonably be expected to spill or discharge in harmful quantities as designated in 40 CFR 117.3 into waters of the United States.

The HSSPCP may be a general plan prepared in accordance with good engineering practice.

The HSSPCP shall be reviewed by a Registered Professional Engineer (P.E.) and certified by such P.E. that the Plan has been prepared in accordance with good engineering practice. A complete copy of the HSSPCP shall be maintained at this facility and a copy shall be submitted to EPA.

A review of the HSSPCP will be initiated upon any significant change in chemical storage. As a result of these reviews, the permittee shall amend the HSSPCP within six months of such review, if appropriate, to include more effective prevention and control technology if (1) such technology will reduce a likelihood of a spill event from the facility, and (2) if such technology has been field-proven at the time of review.

2. Guidelines for the Prevention and Implementation of the Hazardous Substances Spill Prevention Control Plan

The HSSPCP must be carefully thought out and prepared in accordance with good engineering practice and have the full approval of the appropriate management level with authority for committing the necessary resources.

The HSSPCP must include an inventory of all chemicals which could reasonably be expected to be spilled in excess of its reportable quantity as defined in 40 CFR 117.3. Further, the location of each such storage tank must be identified in a plan site map. Where experience indicates a reasonable potential for equipment failure (such as tank rupture or leakage), the HSSPCP shall include a prediction of the direction, rate of flow, and total quantity of each chemical which could be discharged from the facility as a result of each major type of failure.

Appropriate containment and/or diversionary structures or equipment to prevent the discharge of hazardous substances from reaching the Anacostia River shall be provided. Examples of preventive systems include:

- (i) Dikes, berms, or retaining walls sufficiently impervious to contain the chemical spill;
- (ii) Curbing;
- (iii) Culverting, gutters, or other drainage systems;
- (iv) Weirs, booms, or other drainage barriers;
- (v) Spill diversion ponds or retention ponds;
- (vi) Sorbent materials or neutralizing agents.

Spills of chemicals from undiked areas should, if possible, flow into ponds, lagoons, or catchment basins designed to retain the spill. These facilities should not be located in areas subject to periodic flooding.

All control equipment, including valves and pipelines, shall be subjected to regular examinations by operating personnel to ensure that they are in proper working order. Records of such inspections shall be maintained for at least three years at the facility.

3. Spill Reporting

All spill events of hazardous substances in excess of its reportable quantity must be reported within 24 hours of discovery to the National Response Center. Within 30 days of each spill, the event must be reported to the Director. The report shall include:

- (i) Name and location of the facility;
- (ii) Name of owner or operator of the facility;
- (iii) Maximum storage capacity of each spilled chemical;
- (iv) A copy of the HSSPCP;
- (v) Cause(s) of spill;
- (vi) The corrective actions and/or countermeasures taken;
- (vii) Additional preventive measures taken to minimize the possibility of reoccurrence.

12/21/99
FACT SHEET

This document gives pertinent information concerning the NPDES Permit listed below. This permit is being processed as a Major, Industrial permit.

1. NPDES Permit No.: DC0000094

Permit Drafted By: EPA Region 3, Office of Watersheds.
Permit Writer: Mary Letzkus

2. Facility Name: Potomac Electric Power Company
Benning Generating Station

Facility Location: 3400 Benning Road N.E.
Washington, D.C. 20019

3. Contact at Facility:

Name: Lee W. Ingram
Title: Senior Environmental Scientist
Environmental Management Services
Phone: 202-872-3369

4. Permit Characterization:

<input type="checkbox"/> Issuance	<input checked="" type="checkbox"/> Exiting Discharge
<input checked="" type="checkbox"/> Reissuance	<input type="checkbox"/> Proposed Discharge
<input type="checkbox"/> Revoke & Reissue	
<input type="checkbox"/> Owner Modification	<input checked="" type="checkbox"/> Effluent Limited
<input type="checkbox"/> Change of Ownership/Name	<input type="checkbox"/> Water Quality Limited
<input type="checkbox"/> Municipal	<input type="checkbox"/> WET Limit
SIC Code	<input type="checkbox"/> 304L
<input checked="" type="checkbox"/> Industrial	<input type="checkbox"/> Interim Limits
<input type="checkbox"/> POTW	<input type="checkbox"/> Compliance Schedule
<input checked="" type="checkbox"/> Stormwater Management	<input type="checkbox"/> TRE
<input type="checkbox"/> Pretreatment Program	<input type="checkbox"/> Toxics Management

5. Activity Description

PEPCO's Benning Facility is a 77 acre site located adjacent to the Anacostia River at River Mile 5.5. A map of the facility is attached. It is bordered by the District of Columbia's Solid Waste Transfer Station to the North, Foote St. to the East, Benning Road to the South and the Anacostia River to the West. The Benning site, in addition to the generating station, contains facilities for other operating areas of the Company including the Stores Department, General Services Group Transmission & Marketing and Customer Service and Power Distribution Group. A

general description of the operations for each of these organizations is provided below.

Benning Generating Station

The first Unit at the Benning Generating Station went on line in 1906. All of the Units constructed between 1906 and 1967 have been retired. Two 289 MWe (gross) oil-fired units, which were constructed in 1968 and 1972, remain in operation. Due to the economics of operating these units, they are only brought into service during periods of peak electricity demand and generally operate less than 5% of the time each year. These Units burn No. 4 oil as their primary fuel and No. 2 fuel oil for startup. Fuels are delivered by pipeline or truck and are stored in tanks on-site. Secondary containment is provided for all fuel storage and handling areas.

In addition, there are two small package boilers which generate steam for starting Units 15 and 16. They also supply steam for building heating.

Source Water and Usage - The station uses water from two sources. The primary source of water is make-up water pumped to the Station from the Anacostia River by two 5,000 gpm pumps. The water is run through a clarifier to reduce suspended solids prior to use. Condenser cooling water demands at the facility are minimized by the use of two mechanical draft cooling towers (one for each Unit). The primary use of river water is to provide make-up water for cooling tower operation. River water is also used for once-through cooling of equipment. The second source of water is city water, which is treated in a demineralizer and used to fill and maintain water levels in the boilers. In addition, city water is used for potable water and the station has the flexibility to use city water in the cooling towers if river water is not available.

Discharge Water - There are two major process water discharges. The first averages approximately 518,000 gallons per day. Virtually all of this water passes through an oil/water separator prior to passing through internal monitoring point 201. The second major type of process water is cooling tower blowdown, which discharges at approximately 531,000 gallons per day. These discharges occur only when the station is operating and generally last less than 12 hours. Cooling tower blowdown flow makes up just under 5% of the total annual station flow. Small amounts of approved chemicals are added to the cooling tower to control biofouling tower chemistry.

The remaining discharges are primarily runoff from storm events. The majority of storm water passes through an oil/water separator. The facility uses a variety of Best Management

Practices such as secondary containment around oil filled equipment to prevent storm water contamination.

Stores Department

The Stores Department operates 10 buildings at Benning primarily for the purpose of receiving and transferring supplies and materials for use at a variety of facilities throughout the company's operations. In addition, Stores operates a specially constructed building for the purpose of temporary storage of hazardous waste and PCBs prior to disposal off site. Four buildings which store either hazardous materials or hazardous wastes are discussed below.

Building 68 - This is a specially constructed PCB/hazardous waste containment Building and is the central storage facility for all of the Company's PCBs and the site's hazardous waste. The building is approximately 3,000 square feet. The floor is concrete and has interior secondary containment curbing constructed around the interior perimeter. The floor has an epoxy coating that is impervious to any oil or chemical spills. There are no floor drains within the building. The building is equipped with a CO2 fire suppression system. There is a 2,000 gallon secondary containment tank located under the building. In addition to the measures described above to contain any spilled material within the building, outside storm drains in the vicinity of the building are equipped with absorbent booms and spill kits to prevent release of material to storm drains.

Building 88 - This completely enclosed building contains approximately 12,000 stock items, less than five (5) percent of which are considered hazardous materials. The building is manned 24 hrs. a day 7 days a week. All of the floor drains in this building drain to the city sanitary sewer system and, therefore, there is no discharge to the river.

Building 65 - This building stores material, including some hazardous materials, which are used for the Benning Generating Station. The only floor drains located in this building are located in the restrooms.

Building 66 - This building temporarily houses manhole sediment in drums stored on secondary containment pallets. No drains are present in the building. The sludge is analyzed upon arrival. Once the analytical results become available, the drums are labeled and transported for treatment or disposal. There is no discharge to the river.

In addition to the above-mentioned buildings, there is a salvage operation at Benning. Scrap cable and other scrap metals are stored and sold through this facility.

General Services

PEPCO's General Services Group has a number of facilities located at Benning and which can be generally categorized into Motor Transportation Activities and Building and Office Services. Each is discussed below:

Motor Transportation - The department maintains the fleet and provides refueling services at this location. All maintenance activities are conducted in building #32. This building has a concrete floor with no floor drains. Vehicle washing is done on the northern end of this building and wastewater generated from this activity is discharged via an oil/water separator to the sanitary sewer.

Three upgraded 20,000 gallon underground storage tanks are used to store gasoline and diesel for the fleet. One 2,000 gallon underground storage tank is used to accumulate used oil generated during maintenance operations - scheduled for removal, closure or upgrade.

This Department's activities do not impact storm water since all maintenance activities are conducted within building #32 and all vehicle wash water is discharged to the sanitary sewer. There are no process water discharges to the river.

Building and Office Services - This Department maintains certain structures, heating, ventilation and air condition equipment, and provides printing and duplicating services. This department also occupies building #32. Wastewater from a film developing process is discharged via a silver recovery unit to the sanitary sewer.

This Department's activities do not impact storm water and there is no discharge of process wastewater to the river.

Transmission and Marketing & Customer Service and Power Distribution Group

The Benning Complex serves as the primary operating location for the Transmission and Marketing (T&M) & Customer Service and Power Distribution (CSPD) Group. CSPD is responsible for the operation, maintenance and construction of PEPCO's distribution system, including all overhead and underground lines. T&M is responsible for the operation, maintenance, and construction of PEPCO's transmission system, including transmission lines, switch yards, and substations. The Groups occupy a number of buildings at the West End of the property (buildings No. 54, 56, 57, 59 and

75). Building 75 is occupied by both Power Distribution and General Services.

Transmission and Maintenance (T&M) and Marketing Group

Substation facilities at Benning consist of the Plant Electrical; Retired substation No. 14 (34/4kV Substation); Substation No. 41 (69kV Switchyard); Substation No. 41 (230kV Switchyard); and Substation No. 7 (230/69kV Substation). Substations have a monitoring system that signals low oil level at power transformers and oil console units (for underground cable oil tanks).

Customer Service and Power Distribution and T&M Groups

These groups operate and maintain several above ground and underground fuel and oil storage tanks and vaults. Diesel fuel tanks are for operation of various emergency generators. Oil storage tanks house new and used oil for various types of electrical equipment including power transformers, oil circuit breakers and pipe type cable systems. These facilities are either alarmed and/or routinely inspected for leaks and physical condition.

Customer Service and Power Distribution Groups responsibilities include:

Manhole Sediment and Wastewater Treatment Operations - Sediments from manholes are brought to a concrete drying pit on site. Sediments are tested for PCBs prior to placement in the drying pit and again prior to offsite disposal. Water generated during settling in the pit is taken to the manhole wastewater treatment system. The wastewater treatment system consists of two 6,500 gallon tanks equipped with an oil/water separator and carbon filtration. Treated water is tested for PCBs and pH prior to discharge to the river.

Electrical Equipment Oil Removal Facility - There is a covered outdoor holding area for removing oil from electrical equipment. This area has a concrete floor with no drain. It is protected with concrete curbing to contain any spilled mineral oil. Oil absorbent booms are maintained around and in the storm drains receiving runoff from the pavement outside the curb.

6. Permit Overview

This permit contains several effluent limitations, monitoring requirements, and conditions in addition to those imposed in the previous permit. Those new requirements were imposed because of the Agency's interest in better characterizing

pollutant loadings from point and nonpoint sources into the Anacostia River. While EPA recently began implementing a policy of reducing permitting requirements, whenever appropriate, the Agency decided that the additional requirements in this permit are justifiable in light of the sensitivity of the Anacostia River. The permittee supports EPA's efforts to develop a better understanding of water quality issues in the Anacostia River. As demonstrated by the wetlands restoration project at its Benning facility, the permittee remains committed to enhancing the quality of its receiving waters.

The additional requirements include monitoring for PCBs in several process wastestreams and storm water discharges that EPA wishes to evaluate based on current and past operations. The permit also contains a whole effluent toxicity monitoring program designed to evaluate the potential for the Benning Plant to contribute toxicity to the Anacostia River. The permit also imposes the EPA storm water requirements applicable to discharges associated with industrial activity. In addition to monitoring, the permittee is required to prepare and implement a storm water pollution prevention plan designed to reduce wet weather pollutant loadings to the receiving waters.

Several of the monitoring locations in the previous permit were changed or eliminated based on plant modifications or regulatory changes. The "Effluent Limitations" section below provides the basis for the requirements in the current permit.

7. Schematic of Wastewater Treatment System

ATTACHMENT A

8. Discharge Location Description

ATTACHMENT B

Name of Topo: USGS Map, Washington DC, East Quadrangle

9. Effluent Limitations

ATTACHMENT C

10. Special Conditions and Changes to Permit

ATTACHMENT D

ATTACHMENT C
EFFLUENT LIMITATIONS

Effluent Limitations

Outfall No. 003

Discharge Limitations						Monitoring Requirements	
Discharge Parameter	Basis For Limit	Mass Units (lbs/day)		Concentration (mg/l)		Monitoring Frequency	Sample Type
		Average Monthly	Maximum Daily	Average Monthly	Maximum Daily		
Flow (mgd)	---	N/A	N/A	N/A	N/A	1/discharge	meas.
pH	3	not less than 6.0 standard units nor more than 8.5 standard units				1/quarter	grab
Oil and Grease	1	N/A	N/A	15.0	20.0	1/discharge	grab
PCB**	2	N/A	N/A	N/A	No Discharge	1/discharge	grab
TSS	2,5	N/A	N/A	30.0	100.0	1/discharge	grab

The basis for limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards
4. Antibacksliding
5. Demonstrate Compliance (Monitoring Requirements may be revised after 1 year)
6. Demonstrate Compliance (Discharge Limitation may be revised after 1 year)

Effluent Limitations

Outfall No. 401, 416, 402, 013

Discharge Limitations						Monitoring Requirements ^{3/}	
Discharge Parameter	Basis for Limits	Mass Units (lbs/day)		Concentration (mg/l)		Monitoring Frequency ^{4/}	Sample Type
		Average Monthly	Maximum Daily	Average Monthly	Maximum Daily		
Flow (mgd)	---	N/A	N/A	N/A	N/A	during sampling event	estimated ^{2/}
pH	3	not less than 6.0 standard units nor more than 8.5 standard units				4/year ^{5/}	grab ^{6/}
Iron (Tot. Recov.)	2	N/A	N/A	N/A	N/A	4/year ^{5/}	grab ^{6/}
Cadmium	2, 5, 6	N/A	N/A	N/A	N/A	4/year ^{5/}	grab ^{6/}
Nickel	2, 5, 6	N/A	N/A	N/A	N/A	4/year ^{5/}	grab ^{6/}
Copper	2, 5, 6	N/A	N/A	N/A	N/A	4/year ^{5/}	grab ^{6/}
Lead	2, 5, 6	N/A	N/A	N/A	N/A	4/year ^{5/}	grab ^{6/}
Zinc	2, 5, 6	N/A	N/A	N/A	N/A	4/year ^{5/}	grab ^{6/}
Nitrogen	2, 5	N/A	N/A	N/A	N/A	4/year ^{5/}	grab ^{6/}
Phosphorus	2, 5	N/A	N/A	N/A	N/A	4/year ^{5/}	grab ^{6/}
Oil and Grease ^{2/}	1	N/A	N/A	N/A	20.0	4/year	grab
PCB	3	N/A	N/A	N/A	no discharge*	2/year	grab

The basis for limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards
4. Antibacksliding
5. Demonstrate Compliance (Monitoring Requirements may be revised after 1 year)
6. Demonstrate Compliance (Discharge Limitation may be revised after 1 year)

Effluent Limitations

Outfall No. 202 and 203 (blowdown)

Discharge Limitations						Monitoring Requirements	
Discharge	Basis for Limitation	Mass Units (lbs/day)		Concentration (mg/l)		Monitoring Frequency	Sample Type
		Average Monthly	Maximum Daily	Average Monthly	Maximum Daily		
Flow (mgd)	—	N/A	N/A	N/A	N/A	continuous	meas.
pH	1	not less than 6.0 nor greater than 8.5 standard units				1/week	grab
Bromine	2	N/A	N/A	NL	NL	1/Week	grab
Free Available Chlorine ^{1/}	1	N/A	N/A	0.2	0.5	1/week	grab
Total Chromium	2,5	N/A	N/A	0.2	0.2	1/week	grab
Total Zinc	2,5	N/A	N/A	1.0	1.0	1/week	grab
Oil and Grease	2,6	N/A	N/A	N/A	N/A	1/week	grab
PCB	3	N/A	N/A	N/A	No Discharge	Quarterly	grab

The basis for limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards
4. Antibacksliding
5. Demonstrate Compliance (Monitoring Requirements can be revised after 1 year)
6. Demonstrate Compliance (Discharge Limitation can be revised after 1 year)

Effluent Limitations

Outfall No. 202 and 203 (basin washwater)

Discharge Limitations						Monitoring Requirements	
Discharge	Basis for Limitation	kg/day (lb/day)		Concentration (mg/l)		Monitoring Frequency	Sample Type
		Average Monthly	Maximum Daily	Average Monthly	Maximum Daily		
Flow (mgd)	---	N/A	N/A	N/A	N/A	1/discharge	est.
pH	1	not less than 6.0 nor greater than 8.5 standard units				1/discharge	grab
Oil and grease	1	N/A	N/A	15 mg/l	20 mg/l	1/discharge	grab
Total Suspended Solids	1	N/A	N/A	30 mg/l	100 mg/l	1/discharge	grab
PCB	3	N/A	N/A	N/A	No discharge	1/discharge	grab

The basis for limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards
4. Antibacksliding
5. Demonstrate Compliance (Monitoring Requirements can be revised after 1 year)
6. Demonstrate Compliance (Discharge Limitation can be revised after 1 year)

Effluent Limitations

Outfall No. 013A

Discharge Limitations							Monitoring Requirements	
Discharge Parameter	Basis for Limitation	Mass Units (lbs/day)		Concentration (mg/l)			Monitoring Frequency	Sample Type
		Average Monthly	Maximum Daily	Average Monthly	Maximum Daily	Inst. Maximum		
Flow (mgd)	6	N/A	N/A	N/A	N/A	N/A	1 / 2 months	est. 24 hrs
pH	1,6	not less than 6.0 nor greater than 8.5 standard units					1 / 2 months	grab
TSS*	1,6	Monitor Report	N/A	30	100	N/A	1 / 2 months	24 hr. comp.
PCB	3,6	N/A	N/A	N/A	N/A	No Discharge	1 / 2 months	24 hr. comp.
WET*	2,6	N/A	N/A	N/A	See Part A	N/A	2/year	24 hr. comp.

The basis for limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards
4. Antibacksliding
5. Demonstrate Compliance (Monitoring Requirements can be revised after 1 year)
6. Demonstrate Compliance (Discharge Limitation can be revised after 1 year)

Effluent Limitations

Outfall No. 013B

Discharge Limitations							Monitoring Requirements	
Discharge Parameter	Basis for Limitation	Mass Units (lbs/day)		Concentration (mg/l)			Monitoring Frequency	Sample Type
		Average Monthly	Maximum Daily	Average Monthly	Maximum Daily	Inst. Maximum		
Flow (mgd)	6	N/A	N/A	N/A	N/A	N/A	1 / 2 discharges	est. 24 hrs
pH	1, 6	not less than 6.0 nor greater than 8.5 standard units					1 / 2 discharges	grab
TSS	2, 6	Monitor Report	Monitor Report	monitor report	monitor report	N/A	1/2 discharges	24 hr. comp.
PCB	3, 6	N/A	N/A	N/A	No Discharge	N/A	1 / 2 discharges	24 hr. comp.
WET*	2, 6	N/A	N/A	N/A	Site Specific	N/A	2/year	24 hr. comp.

The basis for limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards
4. Antibacksliding
5. Demonstrate Compliance (Monitoring Requirements can be revised after 1 year)
6. Demonstrate Compliance (Discharge Limitation can be revised after 1 year)

Effluent Limitations

Outfall No. 201

Discharge Limitations						Monitoring Requirements	
Discharge Parameter	Basis for Limitation	Mass Units (lbs/day)		Concentration (mg/l)		Monitoring Frequency	Sample Type
		Average Monthly	Maximum Daily	Average Monthly	Maximum Daily		
Flow (mgd)	—	N/A	N/A	N/A	N/A	1/month	measured
pH	1	not less than 6.0 standard units nor more than 8.5 standard units				1/month	grab
Oil and Grease	1,5	N/A	N/A	15.0	20.0	1/month	grab
TSS	1,5	N/A	N/A	30.0	100.0	1/month	24 hr. comp.
PCB*	3,5	N/A	N/A	N/A	no discharge	1/month	24 hr. comp.

The basis for limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards
4. Antibacksliding
5. Demonstrate Compliance (Monitoring Requirements can be revised after 1 year)
6. Demonstrate Compliance (Discharge Limitation can be revised after 1 year)

Effluent Limitations

Outfall No. 101

Discharge Limitations ^{1/}							Monitoring Requirements	
Discharge Parameter	Basis for Limitation	Mass Units (lbs/day)		Concentration (mg/l)			Monitoring Frequency	Sample Type
		Average Monthly	Maximum Daily	Average Monthly	Maximum Daily	Inst. Maximum		
Flow (mgd)	—	N/A	N/A	N/A	0.5 (MGD)	N/A	continuously	meas.
pH	1	not less than 6.0 standard units nor more than 8.5 standard units					1/discharge	grab
TSS	1	N/A	N/A	N/A	30.0	60.0	1/discharge	grab
Total Residual Chlorine	3	N/A	N/A	N/A	0.1	0.1	1/discharge	grab
BOD	2	N/A	N/A	N/A	30.0	60.0	1/discharge	grab
Benzene	2	N/A	N/A	< 1.0	N/A	N/A	1/discharge	grab
Oil and Grease	1	N/A	N/A	N/A	15.0	20.0	1/discharge	grab

The basis for limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards
4. Antibacksliding
5. Demonstrate Compliance (Monitoring Requirements can be revised after 1 year)
6. Demonstrate Compliance (Discharge Limitation can be revised after 1 year)

Effluent Limitations

Outfall No. 010

Discharge Limitations						Monitoring Requirements	
Discharge Parameter	Basis for Limitation	Mass Units (lbs/day)	Concentration (mg/l)			Monitoring Frequency	Sample Type
		Average Monthly	Maximum Daily	Average Monthly	Maximum Daily		
Flow (mgd)	—	N/A	N/A	N/A	N/A	1/discharge	est.
pH	1	not less than 6.0 standard units nor more than 8.5 standard units				1/discharge	grab
Oil and Grease	1	N/A	N/A	15.0	20.0	1/discharge	grab
TSS	1	N/A	N/A	30.0	100.0	1/discharge	grab
PCB	3	N/A	N/A	N/A	No Discharge	1/discharge	grab

The basis for limitations codes are:

1. Federal Effluent Requirements
2. Best Professional Judgment
3. Water Quality Standards
4. Antibacksliding
5. Demonstrate Compliance (Monitoring Requirements can be revised after 1 year)
6. Demonstrate Compliance (Discharge Limitation can be revised after 1 year)

ATTACHMENT D
SPECIAL CONDITIONS AND CHANGES TO PERMIT

Monitoring Point 003

This monitoring point is the discharge point from a treatment system designed to remove oil and grease and solids from water transported to the Benning site, after having been pumped from certain utility manholes located within the District of Columbia and Maryland. The treatment system also receives wastewater transported from the drying pit. The drying pit is used to dewater manhole sediments collected from PEPCO's manholes and transported to Benning, and the solids generated in the treatment system at Outfall 003. Water from steam cleaning of transformers in Building 56 also is transported to the treatment system.

The dual basin treatment system, which operates in a batch mode, consists of an oil/water separator and a carbon filter. Discharge duration and frequency varies but generally is less than three hours per event periodically throughout the year.

The wastewater discharged at Outfall 003 does not result from the operation of an electric power generating unit, and therefore is not subject to the effluent guidelines limitations for steam electric power plants (40 C.F.R. Part 423). The oil and grease, pH, and no discharge PCB limitations from the previous permit remain in effect. The permittee will be required to increase monitoring frequency to once per discharge instead of once per month, and to monitor for pH, PCBs, and TSS.

Monitoring for each discharge event is performed prior to releasing treated water from the basin. To ensure that the sample is representative of the batch to be discharged, the treated water is circulated within the basin before the sample is collected. The permittee does not release treated wastewater unless the testing results demonstrate that all permit limitations have been achieved.

One year after permit effective date, the permittee may request a permit modification pursuant to 40 C.F.R. 122.62 and 124.5 to reduce the frequency or extent of monitoring. EPA may approve such a permit modification if it determines that the reduction will not adversely affect water quality or impair compliance with other terms of this permit.

Outfalls 401, 416, 402, 013 (Storm Water Requirements)

The permit contains storm water provisions adopted from Section XI.O. of the EPA multi-sector storm water permit. 60 Fed. Reg. 51,197 (Sept. 29, 1995). In addition to a requirement for the preparation and implementation of a storm water pollution prevention plan, the permit imposes additional monitoring requirements for iron, PCBs, and a variety of metals and nutrients. PCB monitoring is not required for steam electric plants by EPA's multi-sector permit, nor is there evidence that storm water from the Benning Plant is contributing PCBs to the Anacostia River. Nevertheless, EPA is requiring PCB monitoring

to characterize PCB loadings to the Anacostia River and thereby to ensure its protection. EPA also is requiring the permittee to monitor and comply with and enforceable limit for oil and grease, even though it is not required in EPA regulations.

Sampling will be performed at four locations deemed to be representative of all storm water discharges at the facility (i.e., Outfalls 001, 005, 006, 011, 012, 013, 014, 015, 016, and 401). Outfall 401 receives precipitation runoff from four transformer containment areas, one reactor (transformer) containment area located in a substation, a parking lot adjacent to that substation, and a cable vault floor drain located in that substation area. That outfall discharges to a municipal separate storm drain located along Foote Street.

Monitoring point 416 receives runoff from an area in which industrial activity takes place, including the storage of oil containing PCB that has been removed from out-of-service electrical equipment. That storm water flows to the 54-inch pipe that carries other storm water and plant waste streams to the Anacostia River.

Monitoring point 402 receives runoff from the area around the electrical oil removal facility (Buildings 54, 56, and 57). That storm water also flows to the 54-inch pipe.

Outfall 013 is the discharge point for storm water from several locations within the facility boundaries. In addition, it receives treated plant wastewater from two oil/water separators, which are monitored internally at 201 and 003, overflow from lift station, and de minimis flows including a discharge from an ice machine, and non-contact cooling water for fire pump. Outfall 013 also receives cooling tower blowdown and basin cleaning wastes from the two cooling towers, although storm water sampling is required during periods when neither blowdown nor basin cleaning wastes are being discharged. Because the outfall structure at the discharge point to the Anacostia River is subject to tidal influence and is partially submerged during the flood tide, sampling for Outfall 013 is allowed either at that point or at a manhole located at an internal point in the 54-inch pipe behind the cooling towers.

One year after permit effective date, the permittee may request a permit modification pursuant to 40 C.F.R. 122.62 and 124.5 to reduce the frequency or extent of monitoring. EPA may approve such a permit modification if it determines that the reduction will not adversely affect water quality or impair compliance with other terms of this permit.

Monitoring Points 202 and 203 (cooling tower blowdown)

Cooling tower blowdown is subject to the effluent limitations at 40 C.F.R. § 423.13(d)(1). Those limitations include chorine, and also 126 priority pollutants, to the extent those pollutants are contained in chemicals used for cooling

tower maintenance. In accordance with 40 C.F.R. § 423(d)(3), monitoring for the 126 priority pollutants is not necessary, because the permittee has demonstrated to the EPA that the chemicals it uses for cooling tower maintenance do not contain detectable levels of those pollutants. The permittee also is required to perform quarterly monitoring for PCBs, when blowdown is being discharged. Net limits were added for Total Zinc and Total Chromium.

Cooling tower blowdown is an intermittent discharge that almost never extends beyond one day in duration. About 80 percent of the blowdown events last no more than 12 hours.

One year after permit effective date, the permittee may request a permit modification pursuant to 40 C.F.R. 122.62 and 124.5 to reduce the frequency or extent of monitoring. EPA may approve such a permit modification if it determines that the reduction will not adversely affect water quality or impair compliance with other terms of this permit.

Monitoring Points 202 and 203 (cooling tower basin cleaning washwater)

The cooling tower basins are emptied approximately once every other year to allow removal of solids that have settled to the bottom of the basins. The wash water generated in that cleaning process is considered a low volume waste under 40 C.F.R. § 423.11(b). It is discharged to the 54-inch sewer after passing through internal monitoring points 202 and 203.

The permit includes the effluent limitations established for low volume waste in 40 C.F.R. § 423.12(b)(3). Those limitations include total suspended solids and oil and grease. Limitations for pH and PCBs also are imposed as required under 40 C.F.R. Part 423. In addition, the permittee is required to monitor for PCBs.

Monitoring Point 13 A and B

Outfall 013 is the discharge point for storm water from several locations within the facility boundaries. In addition, it receives treated plant wastewater from two oil/water separators, which are monitored internally at 201 and 003, overflow from lift station, and de minimis flows including a discharge from an ice machine, and non-contact cooling water for fire pump. Outfall 013 also receives cooling tower blowdown and basin cleaning wastes from the two cooling towers, although storm water sampling is required during periods when neither blowdown nor basin cleaning wastes are being discharged. Because the outfall structure at the discharge point to the Anacostia River is subject to tidal influence and is partially submerged during the flood tide, sampling for Outfall 013 is allowed either at that point or at a manhole located at an internal point in the 54-inch pipe behind the cooling towers.

Consistent with the Point Source Category regulations governing steam electric power generating plants, 40 CFR 423.13(d)(1), the permit does not impose a discharge limit for total suspended solids (TSS) at outfall 013B, the outfall for the cooling water blowdown. The cooling towers are a closed loop system, in which recirculated river water is periodically replenished to compensate for evaporative loss. The permittee treats the river water prior to use in a clarifier, removing a reported 50 tons of solids annually from the water used in the cooling towers.

The cooling tower process does not materially add to the remaining TSS in the river water, but the recirculation and replenishment of this water acts to concentrate TSS prior to discharge. (See *Development Document for Effluent Limitation Guidelines and New Source Performance Standards for the Steam Electric Power Generating Point Source Category*, U.S. EPA, October 1994, p.410). With current technology, imposition of a TSS discharge limit would require decreased use of recycled water to discharge suspended solids in river water before they become concentrated. This process change may have the environmentally adverse effect of increasing the permittee's use of chemicals to treat incoming river water.

Although the permit does not impose a TSS discharge limit from Outfall 013B, the permittee is required to monitor its TSS discharge from this outfall.

One year after permit effective date, the permittee may request a permit modification pursuant to 40 C.F.R. 122.62 and 124.5 to reduce the frequency or extent of monitoring. EPA may approve such a permit modification if it determines that the reduction will not adversely affect water quality or impair compliance with other terms of this permit.

Whole Effluent Toxicity

WET monitoring requirements have been imposed on Outfalls 013A and 013B, which is the discharge from the 54-inch pipe both during blowdown and non-blowdown events. While WET monitoring data collected thus far do not indicate the presence of toxicity, EPA has decided that additional testing is appropriate to further evaluate the potential for toxicity from these discharges.

According to the "Anacostia River Toxics Management Action Plan" prepared by the D.C. Department of Consumer & Regulatory Affairs (October 1996), monitoring data from the Anacostia River show elevated levels of several pollutants. Those pollutants are present at levels sufficiently high to cause mortality and other adverse effects in WET tests performed on samples from the Anacostia River. Given that the facility withdraws its cooling water from the Anacostia River, one of the three most toxic river segments in the Chesapeake Bay System, there is a possibility that any toxicity identified at outfalls 013A or 013B might be

attributable to the receiving waters, rather than to the power facility.

To evaluate the potential for toxicity at outfalls 013A and 013B, in light of the nature of the receiving waters, the following monitoring program has been imposed in the permit. WET monitoring will be required over a period of at least two (2) years. For each outfall, a total of four WET tests using Pimephales promelas and four WET tests using Daphnia pulex will be performed over that period.

A screening criterion has been established to enable EPA to determine whether additional work is necessary to better evaluate the potential for facility discharges to add toxicity to the receiving waters. The screening criterion is met separately at outfalls 013A and 013B if a Pass/Fail test is passed in at least seven of the eight tests performed for each outfall over a two-year period. A Pass/Fail test is passed if there is no significant increase in mortality in 100% effluent compared with mortality in control water at the 0.05 significance level.

If the screening criterion has been met, no further WET monitoring is required for the remainder of the permit term. A determination that the screening criterion has not been met would not establish that the discharge has the reasonable potential to cause or contribute to a violation of D.C. or EPA water quality standards. Rather, it would alert EPA that additional evaluation may be warranted. WET testing is intended to identify toxicity in the receiving waters, rather than at the end of the pipe. Thus, EPA would need to evaluate the potential for toxicity based on WET test results in light of available dilution in the receiving waters.

If EPA determines that the screening criterion has not been met, it has the option of notifying the permittee in writing that either accelerated testing or a toxicity reduction evaluation ("TRE") must be performed. Upon receipt of notification, the permittee would have the option of performing a first phase study designed to determine whether or not unacceptable toxicity is present. For that purpose, the permittee would perform "no observed adverse effects concentration" ("NOAEC") multi-concentration tests to determine if a dose-response relationship is present. The WET testing results would be evaluated in light of dilution in the River. The NOAEC is defined as the effluent concentration at which mortality in the WET test is not statistically significantly different from mortality in the control at the 0.05 significance level. Depending on the results of that study, EPA could notify the permittee of the need to perform a comprehensive TRE.

Based on the results of the WET monitoring, EPA will evaluate whether or not the discharges have the potential to cause or contribute to an excursion of the D.C. or EPA water quality standards.

Monitoring Point 201

The discharges through this internal monitoring point include water from the oil/water separator, which treats boiler blowdown, storm water, demineralizer regeneration wastewater, groundwater infiltration, fireside washing, and other miscellaneous wastestreams. The permit includes low volume waste limitations including oil and grease and TSS, as well as limitations on pH and PCBs.

One year after permit effective date, the permittee may request a permit modification pursuant to 40 C.F.R. 122.62 and 124.5 to reduce the frequency or extent of monitoring. EPA may approve such a permit modification if it determines that the reduction will not adversely affect water quality or impair compliance with other terms of this permit.

Monitoring Point 101 (hydrostatic testing tanks)

This is a new internal monitoring point. The facility's oil tanks are cleaned periodically. Those cleaning wastes are trucked off-site for appropriate disposal. Following the cleaning process, city water is used to perform hydrostatic testing. That water is then discharged at the rate of approximately 350 gallons per minute to the 54-inch pipe. Effluent limitations are imposed for pH, TSS, BOD, total residual chlorine, benzene, and oil and grease. Water from this outfall can be tested and, if necessary, recirculated prior to discharge to ensure it will not exceed the permit limitations.

Monitoring Point 010 (Sediment drying pit)

The permit retains the technology-based effluent limitations imposed in the previous permit on any discharges from the sediment drying pit to the 54-inch pipe.